

## **REMARKS**

The Office Action dated August 24, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 3 and 10 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 28-36 have been added. No new matter has been added. Claims 3-5, 8, 10-13 and 28-36 are submitted for consideration.

Claims 3-5, 8 and 10-13 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claim 3 has been amended to overcome the rejection. Therefore, Applicants request that the rejection be withdrawn.

Claims 3-5, 8 and 10-13 were also rejected under 35 U.S.C. 103(a) as being unpatentable over an article titled "SiC/SiC Composites with Improved BN Coating on Fibers" by DiCarlo (hereinafter DiCarlo). According to the Office Action, DiCarlo teaches each of the elements of claims 3-5, 8 and 10-13, except for disclosing the process parameters for the heat treatment step. However, the Office Action alleged that it would have been obvious to one skilled in the art that the flow rate, pressure, temperature and holding time are parameters that would affect the reaction to form BN coating. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in claims 3-5, 8, 10-13 and 28-36.

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Claim 3, upon which claims 4-5, 8, 10-13 and 28-36 depend, recites a method for producing high-strength ceramic fibers and ceramic fiber architectural preforms with an in-situ grown coating on each fiber surface with a composition different than that of the bulk fiber. The method includes the steps of preparing an original sample composed of an architectural preform formed from an as-produced high strength ceramic fiber type. The architectural preform is at least one of a finite section of a continuous-length multi-fiber tow, a two-dimensional textile-formed fabric, and a three-dimensional textile-formed complex-shaped perform. The method also includes placing the original sample in a processing furnace and thermally treating the original sample in the processing furnace at a processing temperature and a hold time of five hours or less in a processing gas having a composition, a pressure, and a flow rate. The fiber composition, the processing temperature and the hold time, and the gas composition, the pressure, and the flow rate are preselected to allow atomic decomposition from the surface of each fiber, with reduced loss in an average tensile strength of the fibers within the thermally treated sample.

Applicants submit that DiCarlo does not teach or suggest each of the elements of the pending claims.

DiCarlo discloses a method of fabricating composites of pretreated silicon carbide in silicon carbide matrices. Thus, providing for the formation of improved boron nitride fiber/matrix interfacial layers.

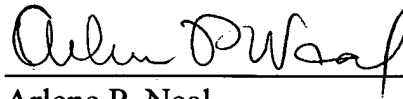
Applicants submit that DiCarlo does not teach or suggest each of the elements of the pending claims. Each of the pending claims, in part, recites placing the original sample in a processing furnace and thermally treating the original sample in the processing furnace at a processing temperature and a hold time of five hours or less in a processing gas having a composition, a pressure, and a flow rate. DiCarlo does not teach or suggest these features.

As noted in the Office Action, DiCarlo is silent on the process parameter for the heat treatment step. Although the Office Action alleged that the process parameter would have been obvious to one skilled in the art, based on the teaching of DiCarlo, a specific hold time, that is five hours or less, would not have been obvious to one skilled in the art. There is no teaching or suggestion in DiCarlo of a specific hold time of five hours or less, as recited in the pending claims. Based on the distinctions noted above, Applicants request that the rejection of claim 3 under 35 U.S.C. 103(a) be withdrawn. Applicants submit that because claims 4-5, 8, 10-13 and 28-36 depend from claim 3, claim 4-5, 8, 10-13 and 28-36 are allowable at least for the same reasons as claim 3, as well as for the additional features recited in claims 4-5, 8, 10-13 and 28-36.

As noted previously, claims 3-5, 8, 10-13 and 28-36 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 3-5, 8, 10-13 and 28-36 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,



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Enclosures: Additional Claim Fee Transmittal  
Petition for Extension of Time  
Check No. 17664

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